

WHAT IS CLAIMED IS:

1. A C-11 protein comprising a protein selected from the group consisting of:

5 (a) a protein comprising an amino acid sequence having SEQ ID NO. 2 (SEQUENCE LISTING); and
(b) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 2 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity.

10 2. A gene encoding the protein according to claim 1.

15 3. A pharmaceutical composition comprising the protein according to claim 1.

4. The pharmaceutical composition according to claim 3, wherein said composition is intended for a cell-calcification inhibitor.

5. A cell-calcification inhibitor comprising a c-erg protein selected from the group consisting of:

20 (a) a protein comprising an amino acid sequence having SEQ ID NO. 4 (SEQUENCE LISTING); and
(b) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 4 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity.

6. An antibody to the C-11 protein according to
claim 1.

7. The antibody according to claim 6, wherein
said antibody is a monoclonal antibody.

5 8. A method for measuring the calcification of
cells comprising:

measuring the expression of a C-11 gene or a c-erg
gene in the cells.

10 9. The method according to claim 8, wherein the
expression of the gene is measured by the amount of C-
11 mRNA expressed in the cells or the amount of c-erg
mRNA expressed in the cells using a probe against a DNA
sequence specific to the C-11 gene or to the c-erg
gene.

15 10. The method according to claim 8, wherein the
expression of the gene is measured by the amount of
expression of a C-11 protein in the cells or the amount
of expression of a c-erg protein in the cells.

20 11. The method according to claim 8, wherein the
expression of the gene is measured by the amount of the
C-11 protein expressed in the cells or the amount of
the c-erg protein expressed in the cells by means of
the antibody according to claims 6, or 7.

25 12. A method for diagnosing osteoarthritis or
OPLL comprising:

measuring the cell-calcification using a method

according to any of claims 8-11.

13. A kit for measuring the cell-calcification of cells comprising either or both of an antibody to a C-11 protein and an antibody to a c-erg protein.

5 14. A method for screening a substance having cell-calcification inhibitory blocking activity, said method comprising using cells transformed with a gene encoding a protein selected from the group consisting of:

10 (a) a protein comprising an amino acid sequence having SEQ ID NO. 2 (SEQUENCE LISTING);

15 (b) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 2 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity;

(c) a protein comprising an amino acid sequence having SEQ ID NO. 4. (SEQUENCE LISTING); and ...

20 (d) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 4 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity.

25 15. A pharmaceutical composition comprising an erg protein.

16. A pharmaceutical composition comprising an

erg gene.

17. A pharmaceutical composition comprising a C-11 protein or a c-erg protein.

18. A pharmaceutical composition comprising a C-5 11 gene or a c-erg gene.

19. A pharmaceutical composition comprising a protein having a consensus amino acid sequence between a c-erg protein and a C-11 protein.